Does radiation risk depend on gender?

The health status of men versus women and boys versus girls can be significantly different by virtue of the differences in their gender. This is true regardless of any exposure to radiation.

Many studies have found that a number of major illnesses are influenced by gender. The same holds true for the potential risks associated with exposure to x-rays or radiation from radioactive materials (also called ionizing radiation).

For example, female breasts are more sensitive to ionizing radiation than male breasts. While men can develop breast cancer, it is extremely rare. The risk for radiation-induced breast cancer in men is extremely small. It should be noted that radiation risk for both genders decreases as we get older. See Does radiation risk depend on age? (https://www.radiologyinfo.org/en/info/safety-hiv_03)

Females have a higher risk of radiation-induced:

- Lung cancer
- Thyroid cancer
- Breast cancer
For more information about potential cancer from radiation exposure, refer to safety and diagnostic medical radiation (https://www.radiologyinfo.org/en/info/safety-hiw_02).

Disclaimer

This information is copied from the RadiologyInfo Web site (http://www.radiologyinfo.org) which is dedicated to providing the highest quality information. To ensure that, each section is reviewed by a physician with expertise in the area presented. All information contained in the Web site is further reviewed by an ACR (American College of Radiology) - RSNA (Radiological Society of North America) committee, comprising physicians with expertise in several radiologic areas.

However, it is not possible to assure that this Web site contains complete, up-to-date information on any particular subject. Therefore, ACR and RSNA make no representations or warranties about the suitability of this information for use for any particular purpose. All information is provided "as is" without express or implied warranty.

Please visit the RadiologyInfo Web site at http://www.radiologyinfo.org to view or download the latest information.

Note: Images may be shown for illustrative purposes. Do not attempt to draw conclusions or make diagnoses by comparing these images to other medical images, particularly your own. Only qualified physicians should interpret images; the radiologist is the physician expert trained in medical imaging.

Copyright

This material is copyrighted by either the Radiological Society of North America (RSNA), 820 Jorie Boulevard, Oak Brook, IL 60523-2251 or the American College of Radiology (ACR), 1891 Preston White Drive, Reston, VA 20191-4397. Commercial reproduction or multiple distribution by any traditional or electronically based reproduction/publication method is prohibited.

Copyright © 2022 Radiological Society of North America, Inc.